



Health of the Commonwealth: Nutritional Status of Massachusetts Residents

A Report of the Massachusetts Nutrition Board



Bureau of Family and Community Health

Massachusetts Department of Public Health

March 2004

Health of the Commonwealth: Nutritional Status of Massachusetts Residents

A Report of the Massachusetts Nutrition Board

Mitt Romney, Governor
Kerry Healey, Lieutenant Governor
Ronald Preston, Secretary of Health and Human Services
Christine C. Ferguson, Commissioner of Public Health

Mary Kelligrew Kassler, Director, Nutrition Division
Sally Fogerty, Assistant Commissioner, Bureau of Family and Community Health
Center for Community Health

Massachusetts Department of Public Health

March 2004

Acknowledgements

The authors of this report were Elizabeth Barden, PhD, Jan Kallio, MS, RD, LDN, and Joshua Nyambose, PhD, MALD, of the Bureau of Family and Community Health, Massachusetts Department of Public Health. This report reflects the active involvement and participation of the members of the Massachusetts Nutrition Board (see Appendix 1 for current membership), in particular the contributions by Maria Bettencourt, MPH, and Rena Prendergast, MTS, RD, LDN.

In addition, we appreciate the assistance and input of Mary Kelligrew Kassler, MBA, and Anne Pearson, MS, RD, of the Massachusetts WIC Nutrition Program; Stephanie Lambou, MPH, of the Bureau of Family and Community Health; and Susan Keyes, MPH, DrPH, and Lorelei Mucci, of the Bureau of Health Statistics, Research and Evaluation. We extend a very special thank you to the students from Tufts University who assisted with this report: Bernadette Binewald, Christine Gandofolo, and Seema Dixit. The suggestions of three anonymous reviewers are greatly appreciated.

Executive Summary

The Massachusetts Nutrition Board (MNB) provides leadership on nutrition issues that affect the residents of the Commonwealth. This MNB report is intended to inform public policy. It presents available data describing the nutritional status of Massachusetts residents, and compares them to established federal health benchmarks. By so doing, the report highlights areas where public health nutrition programs have been effective and identifies gaps where nutrition programs, data collection mechanisms, and other resources may be needed. This report highlights selected data elements, collected between 1990 and 2001, related to nutrition and overweight, physical activity, and maternal and child health. Where possible, data are compared to Healthy People 2010 objectives.

Nutrition and Overweight

- Overweight and obesity are on the rise in Massachusetts adults. Since 1990, there has been a 27% decline in the prevalence of adults of normal weight status, and a 60% increase in the prevalence of adult obesity.
- Adults do not consume the recommended daily number of fruits and vegetables. Fewer than two-thirds of adults report consuming at least two servings of fruit per day, and less than one-third report consuming at least three vegetables a day. Adolescents are even less likely than adults to report consumption of at least two servings of fruit per day.
- Fewer than 36% of women reported sufficient daily calcium intake.
- Food insecurity and hunger exist in Massachusetts, but at a lower prevalence than nationally. The prevalence of food-secure households in Massachusetts was 92%.

Physical Activity and Fitness

- Adults and adolescents do not meet recommendations for regular vigorous physical activity, with only 17% of adults and 62% of adolescents, reporting regular engagement in vigorous physical activity.

Maternal, Infant, and Child Health

- The proportion of babies with low birthweight (LBW; birthweight less than 2,500 grams or 5 lbs 8 oz) has increased from 5.8% in 1990 to 7.2% in 2001.
 - There are disparities in the incidence of LBW by race/ethnicity, with non-Hispanic Blacks having the highest incidence of LBW infants (11.2% in 2001, compared to 7.2% for all births in 2001).
 - Folic acid intake in preconceptual women is below recommended levels, with 43% consuming an average of 400 µg daily.
-

- Breastfeeding at six months and one year are below national benchmarks, with 38% of low-to-moderate income mothers reporting breastfeeding for six months and only 8.3% reporting breastfeeding at one year (data on breastfeeding duration for the general population are not available).

Limitations of the Data

- Nutritional status data are not available for Massachusetts residents who do not participate in specific state or federally funded programs, who do not participate in surveys, or who do not appear in annual vital registry data (such as the birth registry). The degree of nutritional risk of Massachusetts residents not served by such programs is unknown. Available data are limited to populations served by existing specific state or federal programs.
- Available data useful in characterizing the nutritional status of individuals receiving services from state and federal programs using national benchmark indicators (Healthy People 2010) are limited. Most programs are not funded to develop and maintain mechanisms to collect nutritional status data.
- There are no data available regarding the following indicators:
 - the consumption pattern for whole grains, saturated fat, total fat, or sodium for persons aged 2 years and older
 - the daily physical education of public and private school students, or the television viewing of adolescents
 - physical activity among children below ninth grade
 - adult muscular strength, endurance, and flexibility
 - access to physical activity and fitness programs by all school-aged and adult populations

Recommendations:

The Massachusetts Nutrition Board recognizes that there is increased interest and attention to nutrition and its impact on personal health. Current efforts to enhance the nutritional health status of residents receiving nutrition-related services do make a significant difference in their lives. In addition, the Board acknowledges it is imperative to balance needs with recognition that we are in a period of constrained resources.

The Board has identified the following areas of need to develop short-term goals and activities and a long-term plan to ensure, promote, and assess the nutritional status of the residents of the Commonwealth.

- Expand efforts to collect, analyze, and report basic nutrition status indices to better characterize the nutritional status of Massachusetts residents.
 - Basic nutrition status indices, specifically height and weight, should be collected and reported by all state-funded health systems to effectively evaluate against nationally established benchmarks.
-

- Any programs that screen for nutrition status indices should establish a mechanism to collect, analyze, and report data.
 - Ensure that the development of any new surveillance system accounts for data collection in a manner compatible with existing systems, fills in existing data collections gaps, eradicates definitional differences that do not allow continuity from one system to the next, and standardizes data collection and assessment methodologies across all age groups.
 - Advocate for various federal agencies to coordinate how their surveillance elements are defined and collected, so that existing systems can be used for evaluation compared to Healthy People 2010.
- Explore mechanisms to collect dietary intake data that are useful to compare against the Healthy People 2010 benchmarks, specifically consumption patterns for whole grains, saturated fat, total fat, and sodium for persons aged two years and older.
 - Within established nutrition programs that serve young children and adolescents, prioritize activities to address the prevention and control of overweight and obesity.
 - Monitor food security among programs that serve nutritionally at-risk populations and develop ways to assess food security in the general population.

Beyond the recommendations generated by this report, the Board recognizes that there must be on-going focus and collaborative efforts to effectively respond to the nutritional needs and interests of the residents of Massachusetts. As such, the Board recommends the development of short term goals and long term plans to address the following additional areas of need:

- Increase multi-agency coordination in program planning and implementation to coordinate and disseminate successful nutrition interventions, and enhance coordinated and comprehensive nutrition services;
 - Develop a compendium of nutrition messages, and promote their delivery by nutrition programs and the medical community to ensure that all residents of the Commonwealth receive consistent messages;
 - Improve the visibility of nutrition programs across the general population of Massachusetts residents - not just to those who participate in state and federally funded programs – to promote and respond to the increasing interest in nutritional health. Ensure that the Legislature and other policy-makers are kept informed about nutrition program efforts and successes; and
 - Establish and maintain a working relationship between academic institutions and public health programs.
-

Massachusetts Nutrition Board

Chairperson

Catherine D'Amato
President and Chief Executive Officer
The Greater Boston Food Bank, Inc.

Members

Johanna T. Dwyer, D.Sc., R.D.
Director, Frances Stern Nutrition Center
New England Medical Center

Elizabeth Chace-Marino, Director
Government & Corporate Affairs
The Stop & Shop Supermarket Company

Nancie H. Herbold, Ed.D., R.D.
Chair and Professor of Nutrition
Simmons College

Rena Prendergast, M.T.S., R.D., L.D.N.
Dietetic Director
University of Massachusetts, Amherst

Representatives from State Agencies

Shirley Chao, M.S., R.D., LDN
Director, Nutrition Services
Elderly Nutrition Programs
Executive Office of Elder Affairs

Ed Sanders-Bey, Assistant Commissioner
Policy and Program Management
Massachusetts Department of Transitional
Assistance

Mary Kelligrew Kassler, MBA
Director, Nutrition Division
Massachusetts Department of Public
Health

Katie Millett
Administrator, Nutrition Programs and
Services
Massachusetts Department of Education

David Webber, M.P.H.
Coordinator, Farmers' Market Coupon
Program
Department of Agricultural Resources

Jan Kallio, M.S., R.D., L.D.N.
Director, Nutrition Services, Nutrition Div.
Massachusetts Department of Public
Health

Liaison Members

Marilyn Myers, M.Ed., R.D.
FNS Nutritionist
U.S. Department of Agriculture
Northeast Regional Office

Leslie Oliver, R.D., L.D.N.
Nutrition Manager
Greater Boston Food Bank

Nancy Cohen, Ph.D., R.D.
Department of Food Science and Nutrition
University of Massachusetts, Amherst

Kirsten Johnson, M.P.H.
Nutritionist
University of Massachusetts Extension,
Boston

To obtain additional copies of this report, please contact:

Massachusetts Department of Public Health
Bureau of Family and Community Health, Nutrition Division
250 Washington Street, 6th Floor
Boston, MA 02108-4617
ATTN: Jan Peabody or Jan Kallio
617-624-6100
jan.peabody@state.ma.us or jan.kallio@state.ma.us

For further information, please visit the Department of Public Health website:
<http://www.state.ma.us/dph/>
